What Is Claimed Is:

1. A method for the remote programming of a program-controlled device (3), comprising the steps

   (a) remote transmission of program data from a control station (9) via a long-distance connection to an interface (4) connected to the device (3);

   (b) buffering of the program data at the interface (4);

   (c) remote transmission of a legitimization from the control station (9) to the interface (4);

   (d) unbuffered forwarding of the legitimization to the device (3);

   (e) checking of the legitimization by the device (3);

   (f) in case of a positive legitimization, entry of the program data in a program memory (8) of the device (3).

2. A method for the remote programming of a program-controlled device (3), comprising the steps

   (a) remote transmission of program data from a control station (9) via a long-distance connection to an interface (4) connected to the device (3);

   (b) buffering of the program data at the interface (4);

   (c) remote transmission of a legitimization from the control station (9) to the interface (4);

   (d) forwarding of the legitimization to the device (3);

   (e) checking of the legitimization by the device (3), the check including checking of a validity period of the legitimization;

   (f) in case of a positive legitimization, entry of the program data in a program memory (8) of the device (3).

3. The method as recited in Claim 1 or 2,
wherein the legitimization and/or the program data are/is
wirelessly transmitted via the long-distance connection.

4. The method as recited in Claim 3,
wherein the method is repeated if a fault occurs in the
wireless transmission.

5. The method as recited in one of the preceding claims,
wherein the program data and/or the legitimization are/is
transmitted via a wired connection (6) from the interface
(4) to the device (3).

6. The method as recited in one of the preceding claims,
wherein, prior to the transmission of the program data to
the interface (4), second data are read out from a memory
(8) of the device (3) and transmitted to the control
station (9).

7. The method as recited in Claim 6,
wherein the second data are buffered at the interface (4)
prior to being transmitted to the control station (9).

8. The method as recited in one of the Claims 6 or 7,
wherein the control station (9) arranges the program data
on the basis of the second data.

9. The method as recited in one of the preceding claims,
wherein, after acceptance of the program data into the
program memory (8), the success of the remote programming
is checked and an operation of the device (3), controlled
by the program data, is resumed in the case of a positive
result of the check.

10. A system, in particular for executing a method as recited
in one of the preceding claims, comprising an interface
(4) to receive program data and a legitimization, and a

remotely programmable, program-controlled device (3),
which includes a processor (12) and a program memory (8),
wherein the interface (4) is designed to buffer received
program data, to forward a received legitimization to the·
device (3), and to transmit the buffered program data to
the device (3) after a positive check of the
legitimization by the device (3).

11. The system as recited in Claim 10,
wherein the program memory (8) is a flash memory or an
EEPROM.

12. The system as recited in Claim 10 or 11,
wherein the interface (4) is connectable to a control
station (9) with the aid of a wireless long-distance
connection.

13. The system as recited in one of the Claims 10 through 12,
wherein the interface (4) receives the legitimization
from the control station (9) and forwards it to the
device (3) in unbuffered form.

14. The system as recited in one of the Claims 10 through 13,
wherein the device (3) is a control unit which controls a
device (2).

15. The system as recited in Claim 14,
wherein the device (2) is a motor vehicle or a part of a
motor vehicle or a device able to be used as part of a
motor vehicle, for instance an engine.

16. A motor vehicle having a system as recited in one of the
Claims 10 through 15.